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In re Application of

Thomson

Application Number

08/376,327

Filed

1/20/95

Paper No. 33

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United States Patent Application Publication No. _____, page, _____ line _____.

United States Patent Number 5,843,780, column 1, line, _____ or

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703-415-3060

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June 6, 2006

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United States Patent [19]

Thomson

[11] Patent Number: **5,843,780**
 [45] Date of Patent: **Dec. 1, 1998**

[54] **PRIMATE EMBRYONIC STEM CELLS**[75] Inventor: **James A. Thomson, Madison, Wis.**[73] Assignee: **Wisconsin Alumni Research Foundation, Madison, Wis.**[21] Appl. No.: **591,246**[22] Filed: **Jan. 18, 1996****Related U.S. Application Data**

[63] Continuation-in-part of Ser. No. 376,327, Jan. 20, 1995.

[51] Int. Cl.⁶ **C12N 5/06**[52] U.S. Cl. **435/363; 435/366; 435/373**[58] Field of Search **435/363, 366, 435/373**[56] **References Cited****U.S. PATENT DOCUMENTS**

5,449,620 9/1995 Khillan .
 5,453,357 9/1995 Hogan 435/7.21
 5,591,625 1/1997 Gerson et al. .

FOREIGN PATENT DOCUMENTS

WO 94/03585 2/1994 WIPO .

OTHER PUBLICATIONS

Bongso, et al., "Isolation and culture of inner cell mass cells from human blastocysts", *Human Reproduction*, 9:2110-2117, 1994.

Brown, et al., "Criteria that optimize the potential of murine embryonic stem cells for in vitro and in vivo developmental studies", *In Vitro Cell. Dev. Biol.* 284:773-778, Dec. 1992.

Damjanov, et al., "Retinoic acid-induced differentiation of the developmentally pluripotent human germ cell tumor-derived cell line, NCCIT", *Laboratory Investigation*, 68:220-232, 1993.

Nation/World, "Embryonic monkey cells isolated". -Nov. 4, 1994.

Bongso, A., et al., "The Growth of Inner Cell Mass Cells from Human Blastocysts," *Theriogenology*, 41:167 (1994).

Thomson, James A., et al., "Pluripotent Cell Lines Derived from Common Marmoset (*Callithrix jacchus*) Blastocysts," *Biology of Reproduction*, 55:254-259 (1996).

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[57] **ABSTRACT**

A purified preparation of primate embryonic stem cells is disclosed. This preparation is characterized by the following cell surface markers: SSEA-1 (-); SSEA-3 (+); SSEA-4 (+); TRA-1-60 (+); TRA-1-81 (+); and alkaline phosphatase (+). In a particularly advantageous embodiment, the cells of the preparation have normal karyotypes and continue to proliferate in an undifferentiated state after continuous culture for eleven months. The embryonic stem cell lines also retain the ability, throughout the culture, to form trophoblast and to differentiate into all tissues derived from all three embryonic germ layers (endoderm, mesoderm and ectoderm). A method for isolating a primate embryonic stem cell line is also disclosed.

11 Claims, 8 Drawing Sheets